



Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1

of 3

Complete if Known

Application Number	10/585,582
Filing Date	July 10, 2006
First Named Inventor	Alexander FINKELSTEIN
Group Art Unit	2891 Confirmation No. 6641
Examiner Name	Matthew L. REAMES
Attorney Docket Number	FINKELSTEIN=1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	US- 6,355,953 B1	03-12-2002	George KIRCZENOW	
	AB	US-2003/0075772 A1	04-24-2003	Alexander EFROS et al.	
		US-			
		US-			
		US-			

NON PATENT LITERATURE DOCUMENTS /OTHER INFORMATION

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	AC	S. A. WOLF et al., "Spintronics: A Spin-Based Electronics Vision for the Future", <u>SCIENCE</u> , Vol. 294, pp. 1488 - 1495, November 16, 2001	
	AD	H. OHNO et al., "Semiconductor Spin Electronics", <u>JSAP International</u> , Mo. 5, pp. 4-13, January 2002.	
	AE	Gary PRINZ, "Magnetoelectronics", <u>SCIENCE</u> , Vol. 282, pp. 1660-1663, November 27, 1998.	
	AF	Mark JOHNSON et al., "Interfacial Charge-Spin Coupling: Injection and Detection of Spin Magnetization in Metals", Vol. 55, No. 17, pp. 1790-1793, October 21, 1985.	
	AG	R. FIEDERLING et al., "Injection and Detection of a spin-polarized current in a light-emitting diode", <u>NATURE</u> , Vol. 402, pp. 787-789, December 16, 1999.	
	AH	Y. OHNO et al., "Electrical spin injection in a ferromagnetic semiconductor heterostructure", <u>NATURE</u> , Vol. 402, pp. 790-792, December 16, 1999.	
	AI	Vladimir Ya. KRAVCHENKO et al., "Spin injection into a ballistic semiconductor microstructure", <u>Physical Review B</u> , Vol. 67, pp. 121310-1 - 121310-4, 2003.	
	AJ	G. F. DRESSELHAUS, "Spin-Orbit Coupling Effects in Zinc Blende Structures", <u>Physical Review</u> , Vol. 100, No. 2, pp. 580-586, October 15, 1955.	
	AK	E. I. RASHBA, "Properties of Semiconductors with an Extremum Loop I. Cyclotron and Combinatorial Resonance in a Magnetic Field Perpendicular to the Plane of the Loop", Soviet Physics - Solid State, Vol. 2, pp. 1109-1122, June 1960.	
Examiner Signature		Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet 2 of 3

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Attorney Docket Number	FINKELSTEIN=1

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	AL	Yu A. BYCHKOV et al., "Oscillatory effects and the magnetic susceptibility of carriers in inversion layers", <u>J. Phys. C. Solid State Phys.</u> , Vol. 17, pp. 6039-6045, 1984.	
	AM	J. LUO et al., "Effects of inversion asymmetry on electron energy band structures in GaSb/InAs/GaSb quantum wells", <u>Phys. Review B</u> , Vol. 41, No. 11, pp. 7685-7693, April 15, 1990.	
	AN	Simon M. SZE, "Semiconductor Devices: Physics and Technology", <u>Wiley Text Books</u> , 2 nd Edition, pp. 246-253 and 332-368, September 2001.	
	AO	Y. SATO et al., "Large spontaneous spin splitting in gate-controlled two-dimensional electron gases at normal In _{0.75} Ga _{0.25} As/In _{0.75} Al _{0.25} As heterojunctions", <u>Journal of Applied Physics</u> , Vol 89, No. 12 pp. 8017-8021, June 15, 2001.	
	AP	P. M. MORSE et al., "Methods of Theoretical Physics I", Chapter 12.2 Distribution Functions for Diffusion Problems, pp. 1606-1638, June 1953.	
	AQ	Igor ZUTIC et al., "Spintronics: Fundamentals and applications", <u>Review of Modern Physics</u> , Vol. 76, pp. 323-410, April 2004.	
	AR	A. A. KISELEV et al., "T-shaped spin filter with a ring resonator", <u>Journal of Applied Physics</u> , Vol. 94, No. 6, pp. 4001-4005, September 15, 2003.	
	AS	A. A. KISELEV et al., "T-shaped ballistic spin filter", <u>Applied Physics Letters</u> , Vol. 78, No. 6, pp. 775-777, February 5, 2001.	
	AT	Sanker Das. SARMA, "Spintronics", <u>American Scientist</u> , Vol. 89, pp. 516, November 2001.	
	AU	I. I. RABI, "Space Quantization in a Gyating Magnetic Field", <u>Physical Review</u> , Vol. 51, pp. 652-654, April 15, 1937.	
	AV	J. SPECTOR et al., "Control of ballistic electrons in macroscopic two-dimensional electron systems", <u>Appl. Phys. Letters</u> , Vol. 56, No. 10, pp. 967-969, March 5, 1990.	

Examiner Signature	Date Considered
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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	AW	L. W. MOLENKAMP et al., "Electron-beam collimation with a quantum point contact", <u>Physical Review B</u> , Vol. 41, No. 2, pp. 1274-1277, January 15, 1990.	
	AX	Yu A. BYCHKOV et al., "Properties of a 2D electron gas with lifted spectral degeneracy", <u>JETP Letters</u> , Vol. 39, No. 2, pp. 78-81, January 25, 1984.	
	AY	S. DATTA et al., "Electronic analog of the electro-optic modulator", <u>Applied Physics Letters</u> , Vol. 56, No. 7, pp. 665-667, February 12, 1990.	
	AZ	J. LUO et al., "Observation of the zero-field spin splitting of the ground electron subband in GaSb-In-As-GaSb quantum wells", <u>Physical Review B</u> , Vol. 38, No. 14, pp. 10142-10145, November 15, 1988.	
	BA	B. DAS et al., "Evidence for spin-splitting in $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}/\text{In}_{0.52}\text{Al}_{0.48}\text{As}$ heterostructures as $B \rightarrow 0$ ", <u>Physical Review B</u> , Vol. 39, No. 2, pp. 1411-1414, January 15, 1989.	
	BB	J. NITTA et al., "Gate Control of Spin-Orbit Interaction in an Inverted $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}/\text{In}_{0.52}\text{Al}_{0.48}\text{As}$ Heterostructure", <u>Physical Review Letters</u> , Vol. 78, No. 7, pp. 1335-1338, February 17, 1997.	
	BC	G. ENGELS et al., "Experimental and theoretical approach to spin splitting in modulation-doped $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{InP}$ quantum wells for $B \rightarrow 0$ ", <u>Physical Review B</u> , Vol. 55, No. 4, pp. R1958-R1961, January 15, 1997.	
	BD	S. J. PAPADAKIS et al., "Spin-splitting in GaAs two-dimensional holes", <u>Physica E</u> , Vol. 9, pp. 31-39, 2001.	

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